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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,311	04/19/2004	Thorsten Stabel	033851-008	1320
21839	7590	06/30/2005	EXAMINER	
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			ADDISU, SARA	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/826,311	STABEL ET AL.	
	Examiner	Art Unit	
	Sara Addisu	3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/19/04 and 10/20/</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

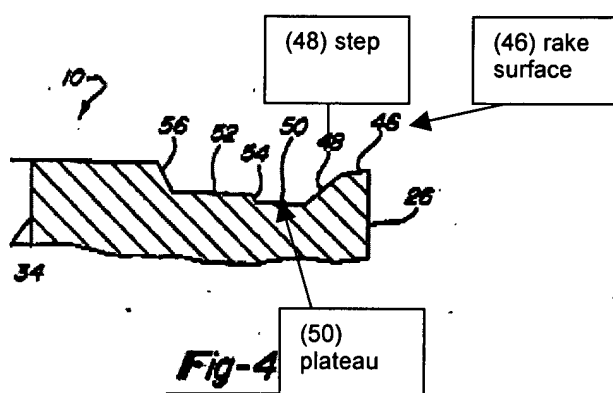
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 11-16, 18, 19, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Katbi et al. (U.S. Patent No. 5,230,591).

Katbi et al. teaches a cutting insert having a multi-cornered base body (square when viewed in top view, fig 2) including top and bottom surfaces (12 & 14), side flanks (26, 28, 30 & 32) interconnected by corner surfaces, cutting surface (36) on top and/or bottom surface, peripheral cutting edge (38) formed at the intersection of side flanks and top and bottom surfaces (12 & 14) (see figure 1 and Col. 2, lines 40-45). Katbi et al. also teaches the cutting surface having a central bore (34), a plateau (50 with raised support pads 52) located on the top and bottom surfaces surrounded by a peripheral positive rake surface (46) that is situated between the plateau surface and the cutting edge (38) (see diagram below). Furthermore, Katbi et al. teaches an upwardly extending variable peripheral step (48) interconnecting the plateau (50) and the rake surface (46) (with the corner step portions extending uninterruptedly along the respective corner rake surface portions) (see figure 2, which also shows that step (48) is linear when viewed perpendicular to the cutting surface). Additionally, Katbi et al. teaches side flanks forming obtuse corners (see figure 2). Katbi et al. also teaches in

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figure 3, lateral cutting edge (38) having a sagging middle portion therefore the step is of varying height having a maximum height is disposed at the corner step portions and a minimum height midway between the adjacent corners. Regarding claim 19, Katbi et al. teaches variable width land surface (rake) which is changes width at (44) leading to a wavy step portion around the corners (see figure 2 and Col. 2, lines 49-54).



(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

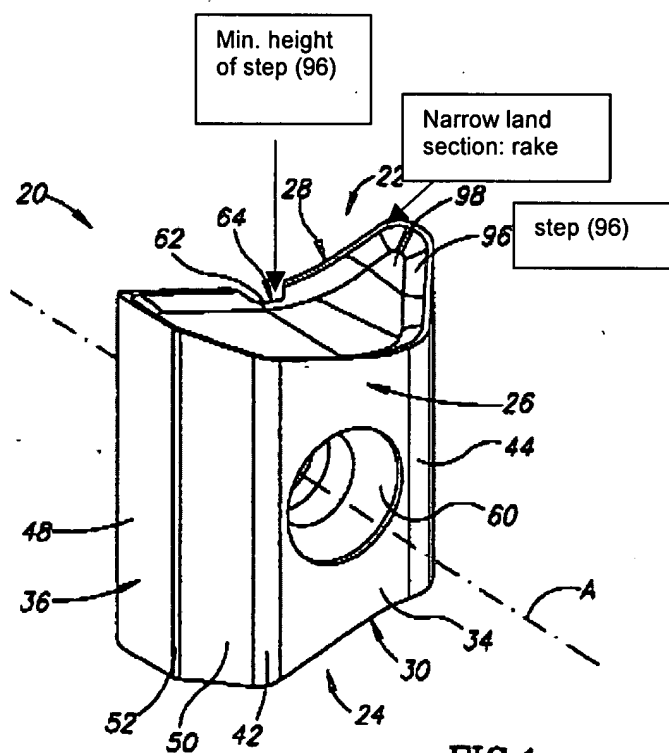
Claims 17 & 20 are rejected under 35 U.S.C. 102(e) as being anticipated by

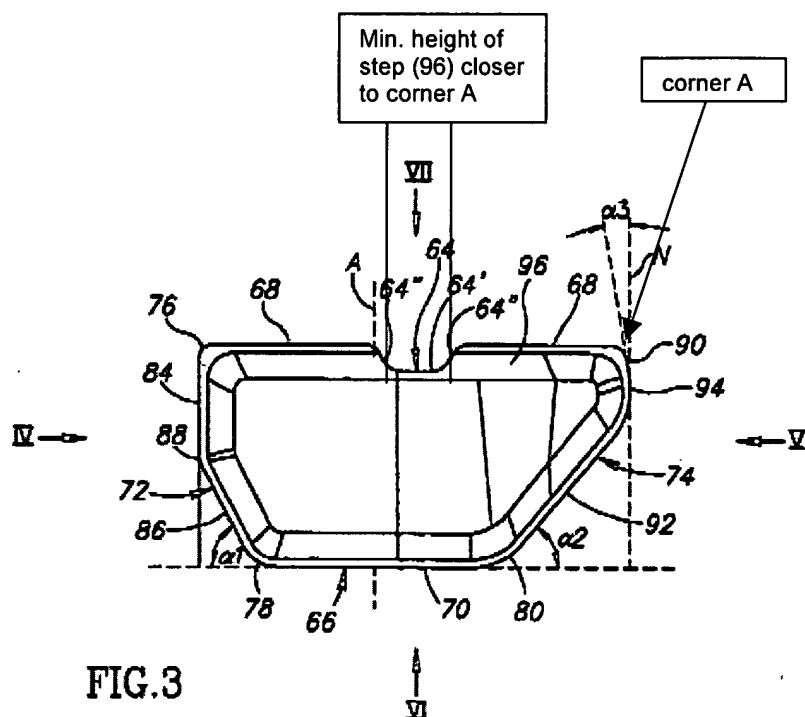
Satran et al. (US Pub. No. 2004/0202515).

Satran et al. teaches a cutting insert having a multi-cornered base body including identical opposing end surfaces (22 & 24), peripheral side surface (26), interconnected by corner surfaces, cutting surface (36) on top and bottom surface, peripheral cutting edge (28 & 30) formed at the intersection of side flanks and top and bottom surfaces (22

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& 24) (see figure 1). Satran et al. also teaches a bore (60) passing through the base body from one lateral side to another, a central surface portion (plateau) (98) located on the top and bottom surfaces surrounded by a peripheral positive rake surface that is situated between the plateau surface and the cutting edges (28 & 30). Furthermore, Satran et al. teaches an upwardly extending variable peripheral surface portion (step) (96) interconnecting the plateau (98) and the rake surface (with the corner step portions extending uninterruptedly) (see figure 3 which also shows that step (96) is linear when viewed perpendicular to the cutting surface). Satran et al. also teaches in figures 1, 3 & 7, step (96) having varying height having a maximum height disposed at the corner step portions and a minimum height situated between adjacent corners but closer to one of them (see also diagrams below).





Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katbi et al. (U.S. Patent No. 5,230,591), in view of Okada et al. (U.S. Patent No. 6,234,726).

Katbi et al. teaches a cutting insert having a multi-cornered base body as set forth in the above rejection.

However, Katbi et al. fails to teach the insert having a wedge angle less than 90 degrees to define a lateral clearance surface.

Okada et al. teaches an indexable insert having flank faces (23) inclined inwardly as they approach a lower surface of the tip body (i.e. have a wedge angle less than 90 degrees), defining a clearance angle/surface with respect to the edges (24) (see figure 2 and Col. 10, lines 34-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incline inwardly the peripheral surfaces of Katbi et al.'s insert towards the lower surface as taught by Okada et al. for the purpose of obtaining clearance in relation to work piece.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sara Addisu
(571)272-6082

A handwritten signature in black ink, appearing to read 'Derris H. Banks', is written over a horizontal line.

DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700